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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/830,087

04/23/2004

Masao Murade

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EXAMINER

NGUYEN, THANH NHAN P

ART UNIT

PAPER NUMBER

2871

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/830,087	Applicant(s) MURADE, MASAO	
	Examiner (Nancy) Thanh-Nhan P. Nguyen	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-18 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 2,5 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/23/04; 10/6/05; 2/6/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is responsive to Election/Restriction dated 3/8/2006. Upon the examination, requirement for Restriction/Election dated 2/8/2006 has been withdrawn. Accordingly, claims 1-23 are pending for the examination.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation in claims 5 and 19 such as, "a top surface of the second insulating film being flush with a top surface of the first conductive film", must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 5 and 19 are objected to because of the following informalities: First, limitation in claims 5 and 19 such as, "a top surface of the second insulating film being flush with a top surface of the first conductive film" is not described in the drawings. Second, it seems the invention has the first conductive film formed over the first insulating film; the second insulating film formed over first insulating film; contact holes formed in second insulating film so that second conductive film being contacted with first conductive film. It is hard to see "a top surface of the second insulating film being flush with a top surface of the first conductive film."

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4, 6-18 and 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Murade (US 6,979,839).

The applied reference has a common inventor and/or common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Murade discloses (figs. 1, 3, 7b, 8b, 13 & 14) an electro-optical device, comprising:

Claim 1:

a connection terminal unit (peripheral region), including:

- a first insulating film (41) formed over a substrate (10) and planarized
- a first conductive film (181b) formed over the first insulating film and that transmits at least a signal from an external circuit
- a second insulating film (42) formed over the first insulating film and planarized
- an opening formed in an area of the second insulating film that corresponds to the first conductive film and that extends to the first conductive film

Claim 3:

- a conductive film formed of the same film as that of any of wiring and an electrode (181) that is deposited in an image display area, being formed

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beneath the first insulating film that corresponds to the connection terminal unit

Claim 4:

- the first conductive film forming a surface of the connection terminal unit coupled to a substrate that connects to the external circuit

Claim 6:

- a second conductive film (122) electrically coupled to the first conductive film through the opening in the second insulating film

Claim 7:

- the second conductive film forming a surface of the connection terminal unit coupled to a substrate that connects to the external circuit

Claims 8 and 9:

- the opening in the second insulating film including a plurality of first contact holes (56.sub.2; 55.sub.2); and the first and second conductive films being electrically coupled to each other through the first contact holes; wherein the plurality of first contact holes being formed in a manner of being dotted at least over the first conductive film

Claim 10:

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- the first conductive film being electrically coupled to wiring that is electrically coupled to an internal circuit

Claim 11:

- the wiring electrically coupled to the internal circuit being formed over the first insulating film and being formed of a same film as that of the first conductive film

Claim 12:

- the wiring electrically coupled to the internal circuit being formed over a third insulating film (40) that is under the first insulating film, and being electrically coupled to the first conductive film through a second contact hole

Claim 13:

- the second contact hole (56.sub.1; 55.sub.1) being formed under a periphery of the first conductive film

Claim 14:

- the second contact hole being positioned at an area overlapping with the second insulating film

Claim 15:

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- the second contact hole including a plurality of second contact holes (56.sub.1; 55.sub.1) and the plurality of second contact holes being formed in a manner of being dotted under the first conductive film

Claim 16:

- the data line (114) being formed over the third insulating film; and the wiring electrically coupled to the internal circuit being formed of a same film as that of the data line

Claim 17:

- a counter substrate (102) opposed to the substrate and including a counter electrode (108); and a pad formed of a same film as that of the first conductive film, the pad and the counter electrode being electrically coupled to each other through a conductive terminal

Claim 18:

a connection terminal unit, including:

- a first insulating film (41) formed over a substrate (10)
- a first conductive film (181b) formed over the first insulating film and that transmits a signal from an external circuit
- a second insulating film formed over the first insulating film (42) and planarized

- an opening (56.sub.2; 55.sub.2) formed in an area of the second insulating film that corresponds to the first conductive film and extends to the first conductive film
- wiring (112b) formed over a third insulating film (40) that is under the first insulating film and electrically coupled to the first conductive film through a contact hole (56.sub.1; 55.sub.1), and an internal circuit

Claim 21:

A method of manufacturing an electro-optical device, comprising:

- forming a first insulating film (41) over a substrate (10) and planarizing a surface of the first insulating film
- forming a first conductive film (181b) formed over the first insulating film and transmitting a signal from an external circuit
- forming a second insulating film (42) over the first insulating film and the first conductive film and planarizing the second insulating film
- removing an area of the second insulating film (56.sub.2; 55.sub.2) that corresponds to the first conductive film to uncover the first conductive film so as to form a connection terminal unit

Claim 22:

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- the first conductive film being formed simultaneously with a capacitance line (175) formed in an image display area
- the second conductive film (122) being formed simultaneously with a data line (114) formed in the image display area

Claim 23:

- an electronic apparatus, comprising the electro-optical device according to claim 1, (fig. 17)

Allowable Subject Matter

1. **Claim 2** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

2. **Claim 20** is allowed.

Reason for allowing: there is no prior art of record that teaches or suggests an electro-optical device comprising a relationship of various elements as claimed with the specific allowable subject matter cited in the following claims:

Claim 2:

- a capacitance line formed above the data line and electrically coupled to the fixed-potential-side capacitor electrode, the capacitance line being formed over the first insulating film, and the first conductive film being formed of the same film as that of the capacitance line

Claim 20:

- a storage capacitor including a pixel-potential-side capacitor electrode electrically coupled to pixel potential of the pixel electrode, and a fixed-potential-side capacitor electrode opposed to the pixel-potential-side capacitor electrode through an insulating film
- a capacitance line formed over a second insulating film that is over the data line and electrically coupled to the fixed-potential-side capacitor electrode; a third insulating film disposed over the capacitance line

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

(Nancy) Thanh-Nhan P Nguyen

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Examiner
Art Unit 2871

TN



David Nelms
Supervisory Patent Examiner
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